CCS Technical Documentation
RH-13 Series Transceivers

Service Software Instructions & Service Concepts

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Service Software Instructions

Phoenix

Phoenix is the next generation Service Software and it has been designed to meet the challenges in servicing modern cellular phones.

The Phoenix program has been built using component architecture. This means that the actual program is small and most of the program's functionality is divided into dynamically loaded modules or DLLs.

Supported Operating Systems

The Phoenix program can be used in any of the follwoing operating systems:

Windows 95, **98**, **2000**, **ME** and **NT 4.0 (SP4)**.

Table 1: Supported Operating Systems

Supported Operating Systems
Windows 95
Windows 98
Windows NT 4.0
Windows 2000

Hardware requirements for using Phoenix

The minimum hardware requirements for using Phoenix are:

Table 2: HW requirements for AMS

Minimum HW requirements for AMS	
Processor	233 MHz
RAM	64 MB
Needed disk space	50 - 100 MB

For Windows 2000, the following requirements are recommended:

Table 3: HW requirements for Windows 2000

Recommended HW for Windows 2000	
Processor	700 MHz
RAM	512 MB
Needed disk space	50 - 100 MB

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Introduction

This section briefly describes how to install the Phoenix software and includes some basic information on how to use the program. For more detailed information, please refer to the Phoenix's **Help –files**. Each feature in Phoenix has its own Help function, which can be activated while running the program.

Press the *F1* key or the feature's Help-button to activate a Help -file.

Setting up Phoenix

1 Download the latest release. Please contact your regional After Market Services point for information on where to download the latest release.

Download and read the release notes, which will have useful information on the software version you are using.

2 Install Phoenix by executing the phoenix installation package and follow the instructions on the screen.

Note: In some products the setup may require you to reboot the computer. In either case, the setup will register Phoenix components. This process can take several minutes.

3 Download the latest data packages for the products you will be using.

By default, the program files are stored under *C:\Program Files\Nokia\Phoenix*

The Phoenix program has been built using component architecture. This means that the actual program is very small and most of the program's functionality is divided into dynamically loaded modules (DLLs).

The data packages will create product specific directories under the installation directory.

Installing Phoenix

1 Before you start installing the program, check that

- the dongle is attached to the parallel port. Contact your supervisor in order to obtain a suitable dongle.
- you have administrator rights (Windows NT or Windows 2000). This is required in order to be able to install Phoenix.

2 The installation checks that the latest supported dongle driver version is installed. The dongle driver is installed if there is no previous installation of the dongle driver or if the installed dongle driver is older than the latest supported version.

3 Reboot your PC before using Phoenix, if you are requested to do so.

Uninstalling Phoenix

Uninstalling another Phoenix version

1 Make sure that the dongle is attached.

2 Go to the Control Panel and select **Add/Remove Programs**.

3 Select **TSS4 Phoenix Release xx.yy.zzz** for uninstallation and click **Add/Remove**.

4 Click **OK** to remove the application

You may be required to reboot your PC after uninstallation.

Note: If you have different product packages installed, the components are uninstalled only if they are not included in other product packages.

Data Packages

Data Packages (DP) is a name for a helpful feature in the Phoenix software. This type of feature provides a flexible way of distributing and installing Phoenix and its data files.

All product-specific data is separated from the program code and installed separately. This means that the installation is performed in at least two steps.

Each product will have its own DP. The FPS-8 flashing equipment also has its own package.

Starting a session

Concepts

In the Phoenix context, *Product* means the cellular phone attached to a PC. More specifically, it is a particular type of phone.

Connection means the type of cable used to attach the phone to the port to which the other end of the cable is attached.

Selecting a connection

The connection defines the cable and the communications port that will be used when connecting to the phone.

1 Active connections are listed in the toolbar's *Connection* pull-down menu. You should make sure that the connection is correct before using the software. Change it, if necessary.

In case the connection is the wrong one, you need to create a new one.

2 Select *Settings* from the pull-down menu.

3 Select *Add* in the *Connection List Dialog* and in fill the relevant fields in the *Con-*

nection setup dialog.

Selecting a product

Many of Phoenix's features are product-specific. It is, therefore, mandatory to choose the product you will be working on at the beginning of the session.

1 Select *File - Scan Product* (or hold the Ctrl key down and press R). Phoenix will scan the connected product and load additional menus which are designed for the product. If the product is not supported then an error message will be displayed and a different Phoenix data package may be required.

2 If you want to manually choose the product or if the phone is dead, select *File - Choose Product.* You will be presented with a list of available products.

After the product selection, you will see an additional menu item on the main menu. If you take a look at the available menu items, you will see that their number has increased.

Phoenix environment

You can configure the program's main toolbar and the product or tool -specific options to your liking.

You can control which toolbars are visible by selecting **View** and **Toolbars** from the pull-down menu. The visible toolbars are marked with a check.

The rest of the options are product or tool -specific. The tool-specific options are set using the associated toolbar.

Using components

When working with Phoenix, each task generally has its own component that will perform the task. The first thing, therefore, is to open the desired component.

Opening a component means that you open a tool window within Phoenix.

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Service Concepts - Flashing and Testing Setups

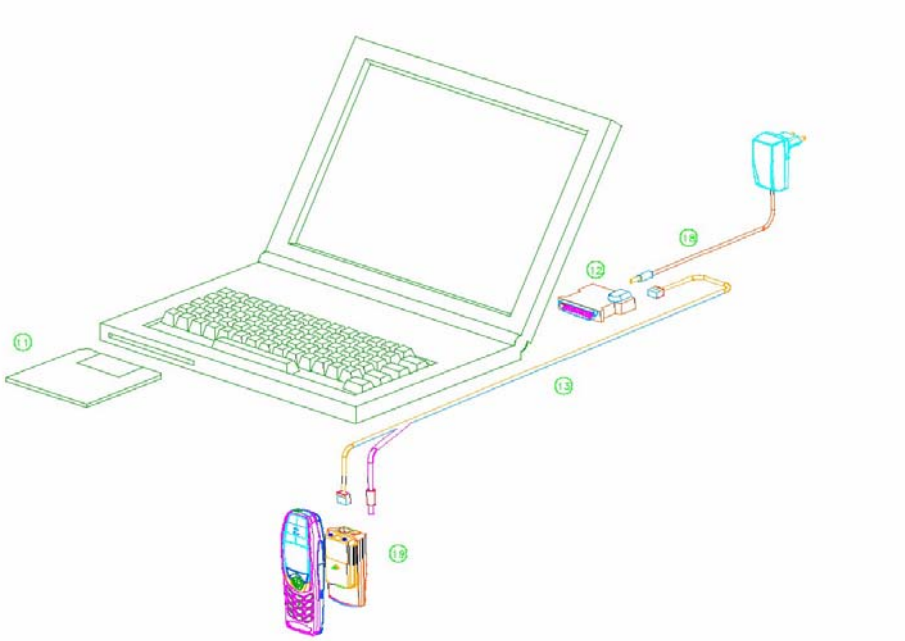
POS Flash (FLS-4S - Setup 1)

This setup is made for Point-Of-Sale use, but it also can be used in service centers. The purpose of this is to make flashing as easy as possible in POS's and to prevent the unnecessary handset flow to service.

Product Code

FLS-4S Sales Package for Americas	*0080543*
APAC	*0080542*
Europe/Africa	*0080541*

Figure 1: View of POS flash



Item	Name	Type	Code
11	Service SW diskette 3.5" for RH-13 Service SW diskette 3.5" for Phoenix Service SW CD		0774287
12	POS dongle (US) POS dongle (APAC) POS dongle (E/A)	FLS-4 (US) FLS-4 (APAC) FLS-4 (E/A)	0080543 0080542 0080541
13	Service cable	XCS-4	0730178
18	Travel charger	ACF-8	0680032
19	Flash Adapter	FLA-14	0770293

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Flashing, testing, and tuning with covers on (Setups 2a, 2b, and 2c)

Tightened performance specifications require more precise equipment and methods for testing and alignment. Manual tuning can't provide accurate results for NPW-2NX products, which means that this task has to be automated.

These setups are intended to be used with either Phoenix or Darium SW. With the Phoenix SW, it is possible to do manual testing and automated tuning. With Darium, it is possible to do automated testing and tuning.

Item	Name	Type	Code
1	Docking Station	JBV-1	0770298
2	Docking Station Adapter	MJF-1	0770354
3	Service cable	XCS-4	0730178
4	DC cable	PCS-1	0730012
5	DC cable	SCB-3	0730114
6	Flash loading adapter	FPS-8	0750123
7	D9–D9 Cable (included in FPS-8 sales pack)	AXS-4	0730090
8	Printer cable IEEE1284 Parallel Cable (included in FPS-8C sales pack)	AXP-8	073F000
9	AC charger (included in FPS-8 sales pack)	ACF-8	0680032
10	Software protection key	PKD-1	0750018
11	Service SW diskette 3.5" for RH-13 Service SW diskette 3.5" for Phoenix Service SW CD		0775341
14	RF cable	XRF-1	0730085
16	Audio box	JBA-8	0770320
20	RF probe	GAC-2	0770379
21	RF coupler	CPL-1	0770287
24	Audio Cable	ADS-6	0730241

Tuning and call testing need an external power supply.

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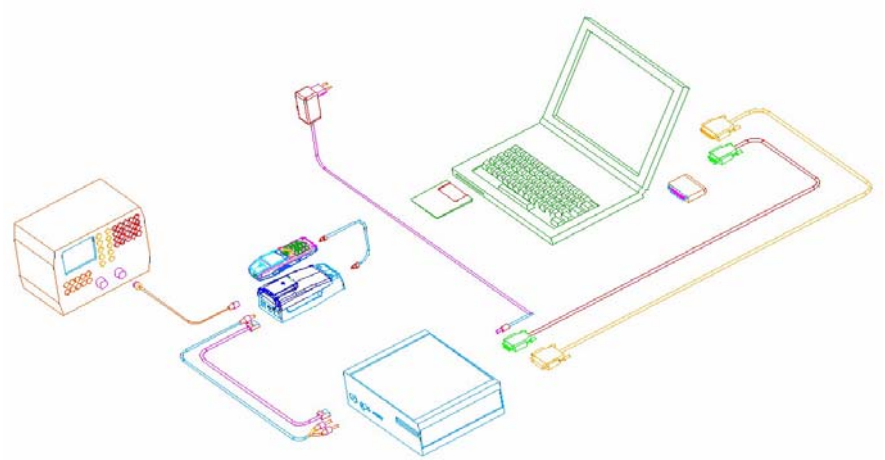
Service Tool Setup 2a

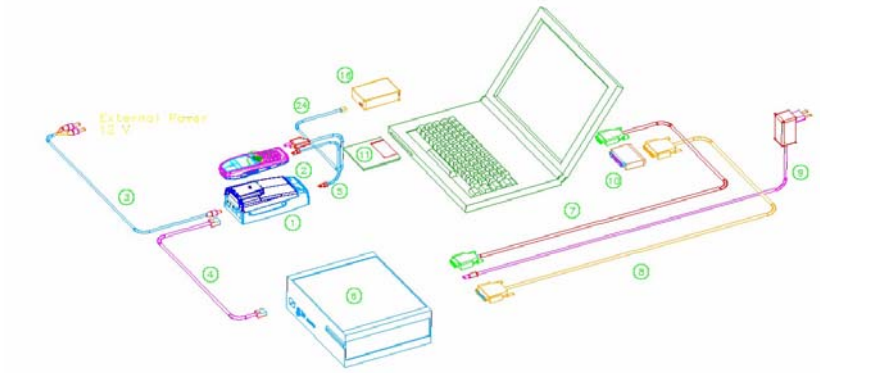
This setup is for flashing, testing and tuning (RF testing and tuning is not possible).

Figure 2: View of FPS-8 Flash concept



To accomplish the EM calibration, the JBV-1 must be powered by 12V external power supply. The EM calibration can also be done by connecting the JBV-1 to a PC using a DAU-9S cable.

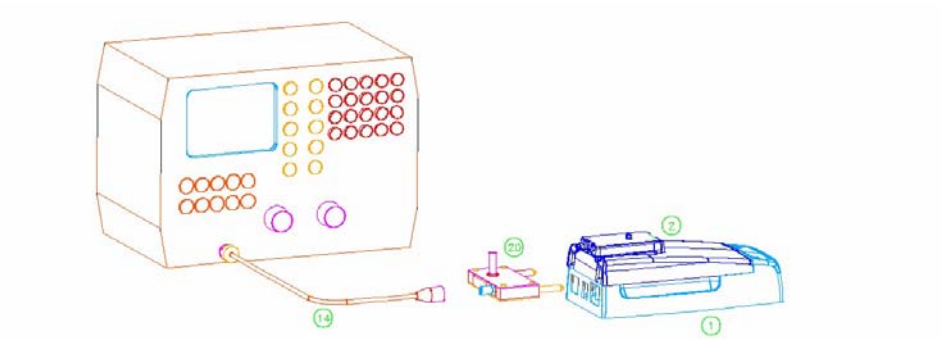
Figure 3: View of Jig concept



Service Tool Setup 2b

RF testing and tuning is possible with this setup.

Figure 4: View of Galvanic concept



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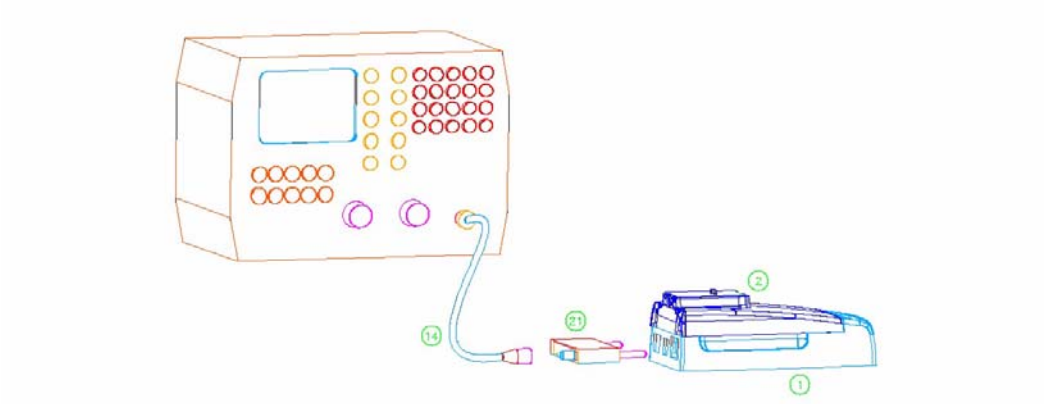
Service Tool Setup 2c

This setup makes antenna go/no go testing possible.

Figure 5: View of Coupler concept



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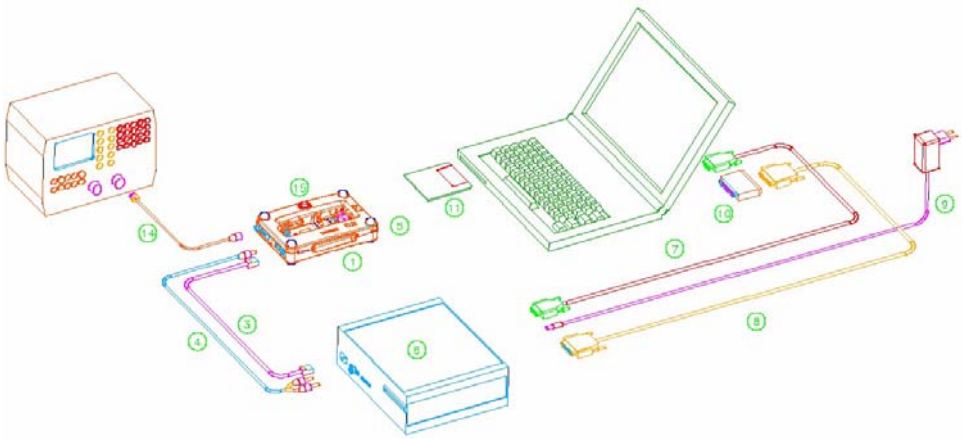
Flashing and testing with covers off (Setup 3)

Item	Name	Type	Code
3	Service cable	XCS-4	0730178
4	DC cable	PCS-1	0730012
6	Flash loading adapter	FPS-8	0750123
7	D9-D9 cable	AXS-4 (included in FPS-8C sales pack)	0730090
8	Printer cable, IEEE 1284 parallel cable	AXP-8 (included in FPS-8C sales pack)	073F000
9	AC charger (included in FPS-8 sales pack)	ACF-8	0680032
10	Software protection key	PKD-1	0750018
11	Service SW CD / Phoenix		0775341
14	Audio box	JBA-8	0770320
15	Module jig	MJS-17	0770353

Figure 6: View of Jig concept



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Parallel Flash (Setup 4)

The Parallel Flash setup allows flashing eight individual handsets at the same time. This requires the PC to fulfill the following requirements: the PC has to have two physical serial ports (COM 1 and COM2).

Item	Name	Type	Code
1	Docking station	JBV-1	0770298
2	Docking station adapter	MJF-1	0770354
3	Service cable	XCS-4	0730178
4	DC cable	PCS-1	0730012
7	2 x D9-D9 cable (included in FPS-8C sales pack)	AXS-4	0730090
8	Printer cable, IEEE 1284 parallel cable (included in FPS-8C sales pack)	AXP-8	073F000
10	Software protection key	PKD-1	0750018
11	Service SW CD / Phoenix		0775341
17	Parallel Flash Prommer	FPS-8C	8406941
	DC cable for FPS-8C		sourced locally

Service Tool Setup 4

Figure 7: View of FPS-8C concept